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10/690,278	10/21/2003	Greg A. Peek	1000-0013	4559

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EXAMINER	
ADDY, ANTHONY S	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/690,278	PEEK, GREG A.	
	Examiner	Art Unit	
	ANTHONY S. ADDY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/23/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,8,12,13,16-20,22,23 and 26-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8,12,13,16-20,22,23 and 26-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on November 23, 2007. **Claims 5-7, 9-11, 14-15, 21** and **24-25** has been cancelled and new **claims 27-37** have been added. **Claims 1-4, 8, 12-13, 16-20, 22-23** and **26-37** are now pending in the application.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-4, 8, 12-13, 16-20, 22-23** and **26-37** have been considered but are moot in view of the new ground(s) of rejection. Arguments are directed to newly added limitations and the new ground(s) of rejection based on the newly added limitations follow below.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-4, 8, 12-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)**.

Regarding claim 1, Chuah discloses a method (see Fig. 8) comprising: determining, at a base station (*e.g. access point 138*) in a wireless network (100), whether quality of service (QOS) can be improved for a group of wireless client devices (*e.g. group of mobile hosts* 150_{11} *through* 150_{nr}) being serviced by said base station by moving at least one wireless client device in said group to another available channel

(see p. 2 [0019-0020], p. 6 [0066] and p. 7 [0067]), wherein said base station (*access point 138*) includes at least a first wireless transceiver following a first wireless standard (*e.g. 802.11(a) transceiver* 420_1) and a second wireless transceiver following a second wireless standard (*e.g. 802.11(b) transceiver* 420_{22}) (see p. 2 [0019-0020], p. 6 [0066], p. 7 [0067] and Fig. 4); and moving said at least one wireless client device to said another available channel when it is determined that QOS can be improved (see p. 6 [0066] and p. 7 [0067]).

Chuah fails to explicitly teach wherein determining includes determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal and, when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, concluding that QOS can be improved by moving said wireless client device having a low quality signal to said second wireless transceiver.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420_{21} is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420_{21} from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420_{21}, one or more mobile hosts 150 sharing said wireless transceiver 420_{21} may be moved to a secondary transceiver (*e.g., wireless transceiver* 420_{22}) in the same access point 138 to thereby relieve wireless transceiver 420_{21} from over usage, thereby

improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include a method, wherein determining includes determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal and, when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, concluding that QOS can be improved by moving said wireless client device having a low quality signal to said second wireless transceiver, in order to relieve said first wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0065] and p. 7 [0067]).

Regarding claim 2, Chuah discloses all the limitations of claim 1. In addition, Chuah discloses a method, wherein: determining includes estimating current usage of transceivers that are available to service wireless client devices within said group (see *Chuah*, p. 6 [0066] and p. 7 [0067 & 0073]).

Regarding claim 3, Chuah discloses all the limitations of claim 1. In addition, Chuah discloses a method, wherein: determining includes analyzing data rates requested by wireless client devices within said group (see *Chuah*, p. 6 [0065-0066] and p. 7 [0067]).

Regarding claim 4, Chuah discloses all the limitations of claim 1. In addition, Chuah discloses a method, wherein: moving includes sending a command to said at least one wireless client device instructing said at least one wireless client device to move to said another available channel (see *Chuah*, p. 6 [0065-0066] and p. 7 [0067 & 0073]).

Regarding claim 8, Chuah discloses all the limitations of claim 1. In addition, Chuah discloses a method, wherein: moving said at least one wireless client device to said another available channel includes moving said at least one wireless client device to another frequency band (see *Chuah*, p. 6 [0066] and p. 7 [0067 & 0073]).

Regarding claim 12, Chuah discloses an apparatus (see Fig. 4; *shows an access point 138*) comprising: a first wireless transceiver (*e.g. 802.11(a) transceiver* 420_1) configured in accordance with a first wireless standard to operate within a first channel (see p. 3 [0034-0035] and Fig. 4; *shows an 802.11(a) transceiver operating within a first channel*); a second wireless transceiver (*e.g. 802.11(b) transceiver* 420_{22}) configured in accordance with a second wireless standard to operate within a second channel (see p. 3 [0034-0035] and Fig. 4; shows an 802.11(b) transceiver operating within a second channel), wherein said second channel is different from said first channel (see p. 3 [0035]); and a controller (*processor 402 reads on a controller*) to move a remote wireless client device (e.g. *mobile host 150, which reads on a remote wireless client device*) from said first channel to said second channel when it is determined that such a move can improve an overall quality of service being provided by said apparatus (see p. 6 [0066], p. 7 [0067] and Figs 1 & 4; shows a mobile host 150 and a processor 402).

Chuah fails to explicitly teach wherein said controller determines that moving a remote wireless client device from said first channel to said second channel can improve the overall quality of service being provided by said apparatus when said remote wireless client device has a low quality signal and is sharing said first wireless transceiver with at least one other wireless client device that has a high quality signal.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420_{21} is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420_{21} from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420_{21}, one or more mobile hosts 150 sharing said wireless transceiver 420_{21} may be moved to a secondary transceiver (*e.g., wireless transceiver* 420_{22}) in the same access point 138 to thereby relieve wireless transceiver 420_{21} from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include an apparatus, wherein said controller determines that moving a remote wireless client device from said first channel to said second channel can improve the overall quality of service being provided by said apparatus when said remote wireless client device has a low quality signal and is sharing said first wireless transceiver with at least one other wireless client device that has a high quality signal, in order to relieve said first wireless transceiver from over

usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0065] and p. 7 [0067]).

Regarding claim 13, Chuah discloses all the limitations of claim 12. In addition, Chuah discloses an apparatus, further comprising: at least one other wireless transceiver to operate within at least one other channel, wherein said at least one other channel is different from said first and second channels (see *Chuah*, p. 3 [0034-0035] and Fig. 4).

Regarding claim 16, Chuah discloses all the limitations of claim 12. In addition, Chuah discloses an apparatus, wherein: said controller moves said remote wireless client device from said first channel to said second channel by sending a command to said remote wireless client device instructing said wireless client device to move to said second channel (see *Chuah*, p. 6 [0066] and p. 7 [0067 & 0073]).

Regarding claim 17, Chuah discloses all the limitations of claim 12. In addition, Chuah discloses an apparatus, wherein: said apparatus includes a wireless access point (see *Chuah*, p. 3 [0032] and Fig. 4; shows an access point 138).

Regarding claim 18, Chuah discloses an article comprising a storage medium having instructions stored thereon that, when executed by a computing platform (see abstract and p. 3 [0032]), result in: determining, at a base station (*e.g. access point 138*) in a wireless network (100), whether quality of service (QOS) can be improved for a group of wireless client devices (*e.g. group of mobile hosts* 150_{11} *through* 150_{nr}) being serviced by said base station by moving at least one wireless client device within said

group to another available channel, wherein said base station (*access point 138*) includes at least a first wireless transceiver following a first wireless standard (*e.g. 802.11(a) transceiver* 420_1) and a second wireless transceiver following a second wireless standard (*e.g. 802.11(b) transceiver* 420_{22}) (see p. 2 [0019-0020], p. 6 [0066], p. 7 [0067] and Fig. 4); and moving said at least one wireless client device to said another available channel when it is determined that QOS can be improved (see p. 6 [0066] and p. 7 [0067]).

Chuah fails to explicitly teach wherein determining includes determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal and, when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, concluding that QOS can be improved by moving said wireless client device having a low quality signal to said second wireless transceiver.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420_{21} is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420_{21} from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420_{21}, one or more mobile hosts 150 sharing said wireless transceiver 420_{21} may be moved to a secondary transceiver (*e.g., wireless transceiver* 420_{22}) in the same access point 138 to thereby relieve wireless transceiver 420_{21} from over usage, thereby

improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include an article, wherein determining includes determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal and, when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, concluding that QOS can be improved by moving said wireless client device having a low quality signal to said second wireless transceiver, in order to relieve said first wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0065] and p. 7 [0067]).

Regarding claim 19, Chuah discloses all the limitations of claim 18. In addition, Chuah discloses an article, wherein: determining includes estimating current usage of transceivers that are available to service wireless client devices within said group (see *Chuah*, p. 6 [0065-0066] and p. 7 [0067 & 0073]).

Regarding claim 20, Chuah discloses all the limitations of claim 18. In addition, Chuah discloses an article, wherein: moving includes sending a command to said at least one wireless client device instructing said at least one wireless client device to move to said another available channel (see *Chuah*, p. 6 [0066] and p. 7 [0067 & 0073]).

5. Claims 29, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** as applied to claims 1, 12 and 18 above, and further in view of **Esteves et al., U.S. Patent Number 6,687,510 (hereinafter Esteves)**.

Regarding claims 29, 32 and 35, Chuah teaches all the limitations of claims 1, 12 and 18. Chuah fails to explicitly teach a method and apparatus, wherein: the signal quality of a wireless client device is determined based upon a data rate requested by the wireless client device. However, determining the signal quality of a wireless client device based upon a data rate requested by the wireless client device is very well known in the art as taught for example by Esteves.

In an analogous field of endeavor, Esteves teaches a base station determining the signal quality of a remote station based upon a data rate requested by the remote station (see col. 9, lines 47-52).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah with the teachings of Esteves to include a method and apparatus, wherein: the signal quality of a wireless client device is determined based upon a data rate requested by the wireless client device, in order to determine how much power to allocate to a reverse link channel for communicating information from a remote station to a base station as taught by Esteves (see col. 3, line 65 through col. 4, line 3).

6. Claims 27, 28, 30, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1**

(hereinafter Chuah) as applied to claims 1, 12 and 18 above, and further in view of **Well Known Prior Art – Official Notice**.

Regarding claims 27, 28, 30, 31, 33 and 34, Chuah teaches all the limitations of claims 1, 12 and 18. Chuah further teaches a method and apparatus, wherein: said first wireless standard is IEEE 802.11a (see p. 3 [0034]) and said second wireless standard is IEEE 802.11b (see p. 3 [0034-0035]). Chuah further teaches the access point may support IEEE 802.11 (g) or more communication protocols (see p. 3 [0034] and Fig. 4), but fails to explicitly teach wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g.

However, the examiner takes Official Notice that it is very well known in the art that a first wireless standard such as IEEE 802.11a is a standard that achieves better throughput than a second wireless standard such as IEEE 802.11b,g and said second wireless standard is a standard that achieves better range than said first wireless standard. Furthermore, one of ordinary skill in the art further recognizes that it would have been obvious to include a standard such as IEEE 802.11b,g, since Chuah teaches the access point may support IEEE 802.11 (a), (b) and (g) or more communication protocols (see p. 3 [0034] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah, wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second

wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g, in order to allow a mobile device to roam, while providing continuous uninterrupted services as taught by Chuah (see p. 8 [0077 7 0085]).

7. Claims 22, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** and further in view of **Fox et al., U.S. Patent Number 6,879,807 (hereinafter Fox)**.

Regarding claim 22, Chuah teaches a system comprising: a first wireless transceiver (*e.g. 802.11(a) transceiver* 420_1), coupled to a first antenna (*e.g. antenna* 422_1) and configured in accordance with a first wireless standard to operate within a first channel (see p. 3 [0034-0035] and Fig. 4; *shows an 802.11(a) transceiver operating within a first channel*); a second wireless transceiver (*e.g. 802.11(b) transceiver* 420_{22}), coupled to a second antenna (*e.g. antenna* 422_3) and configured in accordance with a second wireless standard to operate within a second channel (see p. 3 [0034-0035] and Fig. 4; shows an 802.11(b) transceiver operating within a second channel), wherein said second channel is different from said first channel (see p. 3 [0035]); and a controller (*processor 402 reads on a controller*) to move a remote wireless client device (e.g. *mobile host 150, which reads on a remote wireless client device*) from said first channel to said second channel when it is determined that such a move can improve an overall quality of service being provided by said system (see p. 6 [0066], p. 7 [0067] and Figs 1 & 4; shows a mobile host 150 and a processor 402).

Chuah fails to explicitly teach wherein said controller determines that moving a remote wireless client device from said first channel to said second channel can improve the overall quality of service being provided by said apparatus when said remote wireless client device has a low quality signal and is sharing said first wireless transceiver with at least one other wireless client device that has a high quality signal.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420_{21} is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420_{21} from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420_{21}, one or more mobile hosts 150 sharing said wireless transceiver 420_{21} may be moved to a secondary transceiver (*e.g., wireless transceiver* 420_{22}) in the same access point 138 to thereby relieve wireless transceiver 420_{21} from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include an apparatus, wherein said controller determines that moving a remote wireless client device from said first channel to said second channel can improve the overall quality of service being provided by said apparatus when said remote wireless client device has a low quality signal and is sharing said first wireless transceiver with at least one other wireless client device that has a high quality signal, in order to relieve said first wireless transceiver from over

usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0065] and p. 7 [0067]).

Furthermore, Chuah fails to explicitly teach said first and second antennas are dipole antennas coupled to said first wireless transceiver and said second wireless transceiver. However a dipole antenna coupled to a wireless transceiver in an access point is very well known in the art as taught for example by Fox.

In an analogous field of endeavor, Fox teaches a wireless access unit comprising a dipole antenna electrically coupled to a wireless transceiver (see col. 3, lines 20-28 & 57-66 and Figs. 1 & 2).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah with the teachings of Fox to include a system, comprising: at least one first dipole antenna coupled to said first wireless transceiver; and at least one second dipole antenna coupled to said second wireless transceiver, in order to improve antenna reception and performance, which provides increased speed and bandwidth for a computing device, as well as an increased reliability in a wireless inter-connection to a remote network as taught by Fox (see col. 1, lines 33-35 and col. 5, lines 23-28).

Regarding claim 23, Chuah in view of Fox teaches all the limitations of claim 22. Chuah in view of Fox further teaches a system, further comprising: at least one other wireless transceiver to operate within at least one other channel, wherein said at least

one other channel is different from said first and second channels (see *Chuah*, p. 3 [0034-0035] and Fig. 4).

Regarding claim 26, Chuah in view of Fox teaches all the limitations of claim 22. Chuah in view of Fox further teaches a system, wherein: said controller moves said remote wireless client device from said first channel to said second channel by sending a command to said remote wireless client device instructing said remote wireless client device to move to said second channel (see *Chuah*, p. 6 [0066] and p. 7 [0067 & 0073]).

8. Claims 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** and further in view of **Fox et al., U.S. Patent Number 6,879,807 (hereinafter Fox)** as applied to claim 22 above, and further in view of **Well Known Prior Art – Official Notice**.

Regarding claims 36 and 37, Chuah teaches all the limitations of claim 22. Chuah further teaches a method and apparatus, wherein: said first wireless standard is IEEE 802.11a (see p. 3 [0034]) and said second wireless standard is IEEE 802.11b (see p. 3 [0034-0035]). Chuah further teaches the access point may support IEEE 802.11 (g) or more communication protocols (see p. 3 [0034] and Fig. 4), but fails to explicitly teach wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g.

However, the examiner takes Official Notice that it is very well known in the art that a first wireless standard such as IEEE 802.11a is a standard that achieves better throughput than a second wireless standard such as IEEE 802.11b,g and said second wireless standard is a standard that achieves better range than said first wireless standard. Furthermore, one of ordinary skill in the art further recognizes that it would have been obvious to include a standard such as IEEE 802.11b,g, since Chuah teaches the access point may support IEEE 802.11 (a), (b) and (g) or more communication protocols (see p. 3 [0034] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah and Fox, wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g, in order to allow a mobile device to roam, while providing continuous uninterrupted services as taught by Chuah (see p. 8 [0077 7 0085]).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY S. ADDY whose telephone number is (571)272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony S Addy/
Examiner, Art Unit 2617

/DUC NGUYEN/
Supervisory Patent Examiner, Art Unit 2617